

HOW DO TEACHERS APPROACH INNOVATIONS: UPPER BASIC SCHOOL TEACHER'S ATTITUDE TOWARDS SCHOOLS CONNET AND MULTI-CHOICE RESOURCE CENTRES IN ILORIN, NIGERIA

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Abstract

The purpose of the study was to find the attitude of upper basic school teachers towards Schools ConNet/ Multi- choice Resource Centres put in place in upper basic schools in Ilorin. A questionnaire was administered to 288 upper basic school teachers in 28 public upper basic schools and the data obtained were analysed using frequency count and percentage. The study revealed that the upper basic school teachers showed positive attitude to Schools ConNet/ Multi- choice Resource Centres, while the use of the Schools ConNet/ Multi- choice Resource Centres among teachers in basic schools was found to be low. The positive attitudes of teachers towards Schools ConNet/ Multi- choice Resource Centres is a significant factor which will contribute to integration of Information Technology the teacher education curriculum in Nigeria. It is therefore recommended that IT should be integrated into teacher education curriculum especially in the area of pedagogy to develop the required skills of using IT in teaching.

Keywords: Schools ConNet, Multi- choice Resource Centres, upper basic schools, teachers' attitudes, innovation

1. Introduction

Information technology is the bedrock for national survival and development. It has become the most effective means in the quest to achieve sustainable development. The National Policy on Secondary Education cited in Adediran (2010) recognizes the prominent role of information technology in knowledge advancement and therefore noted that Government shall provide necessary infrastructure and training for the integration of IT in the school system.

In recognition of the importance of information technology, Yusuf (2011) opined that if IT must fulfil these roles, then there is the need to use IT for education. In other words, IT should be integrated into the mainstream of the Nigerian educational system particularly, at the basic level.

Improved basic education is indispensable to the foundation of effective human capital in any country (Yusuf, 2011). The need for ICT in Nigerian secondary schools cannot be overstressed. In this technology-driven age, everyone requires ICT fluency to survive. All sectors of the nation's economy are finding it very essential to train and re-train their employees to establish or increase their knowledge of computers and other ICT facilities (Adomi 2010).

The ability to use computers effectively has become an essential part of everyone's education. Information and communication technology as a veritable instrument that enhances instructional quality, students' participatory learning and learning by doing has become an inevitability. Education stakeholders are now identifying the influence of information technology on the quality of education and its potential of improving the instructional quality and performance of students. According to Borris (2011), new technology offers significant potential for enhancing the learning and teaching of mathematics at all levels. There is substantial evidence that, in the right hands and used appropriately for specific purposes in specific contexts, ICT can be an effective tool in supporting teaching and learning.

It should be noted that 2004 was not the first attempt the Nigerian government made to introduce computer education in schools. In 1988, the Nigerian government enacted a policy on computer education. The plan was to establish pilot schools and diffuse computer education innovation first to all secondary schools, and then to primary schools. Unfortunately, the project did not really take off beyond the distribution and installation of personal computers.

The Federal Ministry of Education has launched an ICT-driven project known as School Net (Adomi 2010), which was intended to equip all schools in Nigeria with computers

and communications technologies. In June 2003, at the African Summit of the World Economic Forum held in Durban, South Africa, the New Partnership for African Development (NEPAD) launched the e-Schools Initiative, intended to equip all African high schools with ICT equipment including computers, radio and television sets, phones and fax machines, communication equipment, scanners, digital cameras, and copiers, among other things. It is also meant to connect African students to the Internet.

The NEPAD capacity-building initiative will be executed over a ten-year period, with the high school component being completed in the first five years. Three phases are envisaged, with fifteen to twenty countries in each phase. The phases are to be staggered, and an estimated 600,100 schools are expected to benefit. The aim of the initiative is to impart ICT skills to young Africans in primary and secondary schools, and to harness ICT to improve, enrich, and expand education in African countries (Aginam, 2006).

The Nigerian Federal Government has commissioned a Mobile Internet Unit (MIU) operated by the Nigerian National Information Technology Development Agency (NITDA). The MIU is a locally-made bus that has been converted into a mobile training and cyber centre. Its interior has ten workstations, all networked and connected to the Internet. The MIU is also equipped with printers, photocopiers, and a number of multimedia facilities. Internet is provided via VSAT with a 1.2m dish mounted on the roof of the bus. It is also equipped with a small electric generator to ensure regular power supply. The MIU takes the Internet to places areas and various primary and high schools (Adomi and Kpakgban,2010). The number of buses is so small, however, that most rural areas and schools have not yet been covered.

In the realisation of the roles of education and the importance of the IT, the government encouraged the private involvement in her strive to develop education. This is because of the fact that the government alone cannot provide adequately all the necessary facilities that can transform the present dismal state of education. In response to the call for partnership, GSM Providers in Nigeria in their bid to carry out part of their social responsibilities, embarked on SchoolsConNet project also referred as Multi-Choice Resource Centre.

It is realised that among the many problems facing the quality of education, is the inadequate facilities and equipment with which the teachers can use to teach. Probably that is why Sara, David and Leonard (2010) believed that introducing technology into schools is largely dependent upon the availability and accessibility of ICT resources (e.g. hardware, software and communications infrastructure). Clearly if technology cannot be accessed by the teacher, as in so many educational settings in schools, then it will not be used. We know that

state funding for such resources is scarce, and that ICT resources tend to be more available only at the tertiary level of education in Nigeria.

According to MTN (2010), The MTNF is in partnership with SchoolNet Nigeria for the SchoolsConNet project designed to enable teachers and students in Nigerian public secondary schools to gain confidence and understanding of how Information & Communication Technology (ICT) can add value to their lives and learning. The project ensures that the secondary schools are introduced to IT. The Schools ConNet project provides the following to schools in Nigeria, namely: a server computer with 21 workstations, fully networked, Subject software to serve as teaching aids, One (1) 30KVA generator, A networkable printer, Ten (10) stabilizers & Four (4) 1.5HP air conditioners, Multimedia projector and white board, Electrical works for the computer lab, Furniture to seat 42 students in the lab, VSAT equipment and internet connectivity bandwidth subscribed for 1-year, Teacher training at a selected location in the state for 6 teachers, Technical training for lab attendants, Insurance cover for 1-year, and Retainer fees of the local technical company for 1-year.

However, studies have shown that the introduction into secondary schools does not by itself improve the quality of education or raise learners attainment. Michael, Leigh and Peter (2011) believed that one important measure of the success of any educational reform is the extent to which it is adopted by teachers. If there is resistance to the adoption of technology then the potential will not be realised. Yusuf (2011) stated that having ICT in schools will not guarantee their effective use. Michael, Leigh and Peter (2011) maintained further that regardless of the quantity and quality of technology placed in classrooms, the key to how those tools are used is the teacher. According to Jekayinfa (2007), whatever policy or programme embarked upon by government, the outcome or realisation of the objective is determined by the calibre of teachers available.

According to Yusuf (2011), the teachers must have the competence and the right attitude towards technology if the gains of IT would be realised. In addition, attitudes refer to one's positive or negative judgment about a concrete subject. He maintained that attitudes are determined by the analysis of the information regarding the result of an action and by the positive or negative evaluation of these results. In other words, if the attitude of a person is negative towards a thing, it is likely that the disposition will be negative and conversely. This means that there is always a positive relationship between teachers' attitude and their use of ICT. More positive attitudes towards the computer were associated with a higher level of computer experience as concluded by Sara, David and Leonards (2011). In fact, teachers'

behaviour serves as the role model and as a consequence, determines the students' attitude towards ICT as in the schools conNet project.

Studies such as Ali (2009), Boris (2011), Khalid (2009), Sara et al (2011), Yusuf (2011), have shown that teachers do not use IT, therefore may not use the School Connect Project. A number of factors have been attributed to it. For instance, Yusuf (2011) stated that literature suggests that lack of adequate training and experience is one of the main reasons why teachers do not use technology in their teaching. Adomi and Kpangban (2010) observed that computer was not part of classroom technology in more than 90% of the Nigerian public school. Schools ConNet project is regarded as an innovation. This also might have contributed to teachers' negative attitude towards computer and technology. In addition, Khalid (2009) observed in his study attributed the negative attitude, use and successful integration of ICT in teaching to lack of confidence and competence of the teachers which results to reluctance to use computers in the classroom.

He also realised that the teachers were not provided the required knowledge and skills during their training. This problem can be improved by integrating technology into teacher education. Therefore, teacher education institutions should try to restructure their education programmes and classroom facilities, in order to prepare the would- be teachers to maximize the potentials of ICT in improving the content of teacher education.

There are a number of factors which determine attitude of teachers towards IT. For example, Yusuf (2011) observed inequity of access to education between male and female served as a problem. Derbyshire, 2003 cited in Yusuf(2011) observed a study conducted in four African countries identified that while in principles girls are given the same opportunity as boys of access to computer, gender equity does not exist in practice. Okwudishu (2005) discovered that the unavailability of some ICT components in schools hampers teachers' use of ICTs. Lack of adequate search skills and of access points in the schools were reported as factors inhibiting the use of the Internet by secondary school teachers (Sara et al 2010). The absence of ICT equipment in most Nigerian secondary schools leads students to resort to cybercafés for Internet access. Most cybercafé clients in Nigeria are students (Adomi et al, 2010).

Yusuf(2011) in his study noted that female and male students had the same amounts and types of experiences of computer, females' achievement scores and attitudes are similar to that of male's at all educational levels. This implied that gender difference is not a factor. This means that competence in ICT could be seen as a product of interest in ICT, where men are more interested in ICT than women. This study aims at finding out the attitude of and use

of MTNF School ConNet and Multi Choice Resource Centres by teachers in Kwara State secondary schools.

2. Research Questions

The focus of the study is to answer the following research questions.

1. What is the attitude of Secondary school teachers towards the Schools ConNet/ Multi-Choice Resource Centres?
2. To what extent do the basic school teachers use the MTNF-Schools ConNet and Multi-Choice Resource Centres?

3. Methodology

The survey design was adopted for the study. All the 1141 Upper Basic school teachers in Ilorin constitute the population. Using the Computer assisted sample size calculator, at 5% confidence interval, 288 teachers in these schools participated in the study.

The survey instrument used for this study was the researcher developed instrument. The survey instrument had two sections. Section A contained one item which elicited the gender of the respondents. Section B focused on student-teachers' attitude towards Schools ConNet and Multi-Choice Resource Centres. The section contained 10 items and the modified Likert response mode of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) were used. To test the instrument's validity and reliability, the initial draft was administered on 20 teachers drawn from a secondary school which had Schools ConNet and Multi-Choice Resource Centre in Ijagbo. The test-retest method of two week interval was used to determine reliability of the instrument. The reliability coefficients of 0.57 was obtained administered and returned.

For the purpose of data analysis, frequency count and percentage were used to answer the research questions.

4. Results

Table 1. Demographic Information of Participants

Variables		N	%
Gender	Male	135	46.9
	Female	153	53.1

Table 1. indicated that 135 (46.9%) were male teachers while female teachers were 153(53.1%;) this shows that both male and female students were fairly represented.

Research Question 1

1. What is the attitude of Secondary school teachers towards the Schools-ConNet and Multi- Choice Resource Centres?

Table 2. Analysis of Results on the Attitude of Respondents towards the Use of Schools- ConNet and Multi- Choice Resource Centre

S/N	Items	4	3	2	1
1	SC&MRC enhances my teaching.	131(45.49)	147(51.04)	7(2.43)	3(1.04)
2	Mail creates more information between teachers and learners.	141(48.9)	95(32.99)	41(14.2)	11(3.8)
3	I would teach better if I could use SC&MRC.	113(39.3)	144(50.0)	23(8.0)	10(3.7)
4	My students learn more from ICT than they do from the classroom.	113(39.3)	144(50.0)	23(8.0)	10(3.7)
5	SC&MRC is necessary for effective teaching.	141(48.96)	95(32.9)	41(14.24)	11(3.8)
6	SC&MRC makes my teaching more interesting.	133(46.18)	151(52.43)	3(1.04)	1(0.35)
7	Teacher education should include IT	143(49.65)	139(48.26)	3(1.04)	3(1.04)
8	I don't like going to	1(0.35)	2(0.69)	141(48.96)	144(50.0)

9	SC&MRC. SC&MRC distract students attention.	41(14.24)	51(17.72)	95(32.99)	101(35.07)
10	The state of facilities discourages me from using SC&MRC	101(35.07)	74(25.69)	52(18.06)	51(17.72)

Note; Strongly Agree, 4; Agree, 3; Disagree, 2; Strongly Disagree, 1

From the analysis, it is observed that basic school teachers have a general attitude that is positive towards SC/MRC. This is as a result of their responses to the items. In all the items, majority were positive about the SC/MRC. With regards to the effect on teaching, 45.49 And 51,04% respectively strongly agreed and agreed that SC/MRC enhanced their teaching. Only 2.43, 1.04 disagreed and strongly disagreed respectively

Research Question 2

To what extent do the basic school teachers use the MTNF-Schools ConNet and Multi-Choice Resource Centres?

Table 3. Analysis of Respondents level of use of MTNF-Schools ConNet and Multi- Choice Resource Centres

No of Respondents	Regularly	Occasionally	Rarely	Not at all
288	64(22.2)	92(31.9)	65(22.6)	67(23.3)

From the analysis, the result showed that out of 288 respondents, 64(22.2) regularly used SC/ MRC while 92 constituting 31.9% occasionally used the centre. 22.6% rarely used it and 23.3% did not use it at all.

Discussion

Schools ConNet and Multi-Choice Resource Centre is an innovation which is used in many disciplines around the world. Schools ConNet and Multi-Choice Resource offers a wide range of services to educators in teaching and learning for different school subjects. Although SC & MR has long been utilised in different disciplines, especially, at university level, recognition of its potential at the secondary school level only became obvious at the beginning of the 2007 with the introduction of Basic Education Curriculum. This study attempted

to discover the SC & MR technology focusing on the basic school teachers' attitudes towards SC&MRC. This study investigated teachers' attitude to and use of SC&MRC at the upper basic schools in Ilorin. From the analysis, the results revealed that basic school teachers seem to have positive attitude. This finding is in line with Ali (2009) and Yusuf (2011), who noted a generally positive attitude of the respondents in his study. This positive attitude indicated their willingness for the integration of IT in the curriculum.

However, their use of the SC/MRC did not reflect their attitude. This finding is in line with Ali (2009), Yusuf (2011), Sara (2010) who also found out that the level of use was still low and did not reflect their attitude. The finding may be as a result of lack of competence due to lack of training during pre-service.

5. Conclusion and Recommendations

Recent research shows that the IT innovations have the potential to revolutionise the quality of subject teaching and learning when carefully integrated into the classroom. The role of the teacher is utterly critical here. The study found that teachers generally have positive attitude to SC/ MRC. Despite general enthusiasm and belief in benefits for teachers and learners, is their lack of use of the centres by the teachers as a result of inadequate preparation, either initially or in-service. Research indicates that, until recently, training opportunities have remained limited in availability and inconsistent in quality. This has resulted in demonstrably low patronage in using ICT. The findings suggest the need to integrate ICT into the teacher education programme. The integration of ICT should be how to use it to teach rather than as a discrete subject in the school.

References:

- Adomi, E.&Kpangban, E.(2010). Application of ICTs in schools.*Maths Sci&Tech Ed*,5(3),235-245
- Ali, D.(2009). How do lecturers approach New Technology: Geography teachers' attitude towards Geography information system(GIS). *European Journal of Educational Studies*. 1(1),43-53
- Boris, H., Michael, C., Leigh, W.& Peter, P. (2011). (Factors leading to the adoption of a learning technology: The case of graphics calculators. *Australasian Journal of Educational Technology*. 27(2), 343-360.
- Mudasiru, O. Y.; Modupe, R. B. (2011). Student-Teachers' Competence and Attitude towards Information and Communication Technology: A case Study in a Nigerian University. *Contemporary Educational Technology*. 2(1), 18-36.
- MTN (2010).MTN Foundation School ConNet/Multi-Choice Resource Project. Abuja: MTM Publications.
- Philip, A.; Oluwatolani, O.; Adeniran, O. (2010).An Evaluation of the Impact of ICT Diffusion in Nigeria's Higher Educational Institutions.*Journal of Information Technology Impact*. Vol. 10, No 1, pp. 25-34.
- Sara, H.; David, H.; Leonard, W. (2010). Teacher Factors Influencing Classroom Use of ICT in Sub-Sahara Africa.*Itupale Online Journal of African Studies*. 2, 39-54.